

**A NEW SPECIES OF *BOOPHANE* HERBERT (AMARYLLIDACEAE)
FROM THE NORTH WESTERN CAPE**

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ABSTRACT

A new yellow-flowered species of *Boophane* from the north western Cape, is described and illustrated.

UITTREKSEL

'N NUWE SOORT *BOOPHANE* HERBERT (AMARYLLIDACEAE) VANAF
DIE NOORDWESTELIKE-KAAP

'n Nuwe *Boophane*-spesie met geel blomme uit die noordwestelike Kaapprovinsie word beskryf en geïllustreer.

Key words: *Boophane*, sp. nov., Amaryllidaceae, north western Cape.

Boophane is a small genus of the Amaryllidaceae distributed throughout eastern and southern Africa. In the *Flora Capensis* (1896) Baker recognised three species. Two additional species, *B. haemanthoides* Leighton and *B. pulchra* Barker, both from the western Cape, were described in 1947 and 1963 respectively. At the time of their publication Leighton and Barker collected several more specimens of *Boophane* from Namaqualand, unlike any thus far known. To these specimens (at Kew and the Compton Herbarium) Miss Barker appended the unpublished name *B. flava*.

Field work in Namaqualand during the past three years yielded confirmation of the distinctiveness of *B. flava*. The species is described here for the first time.

***Boophane flava* Barker ex Snijman, sp. nov.**

Boophane flava Barker ex Snijman; species floribus flavis et staminibus declinatis congeneribus diversa.

Bulbus profunde hypogaeus, anguste ad late ovatus, 100-130 mm diam., tunicis crustaceis ferrugineis, superne in collum productis; collum transverse

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porcatus. *Folia* (3-)4-6, hysterrantha, prostrata, laminis late loratis, 210-420 mm longa, 50-110 mm lata, plana, subtus rubropunctata, margine ciliato. *Pedunculus* complanatus, 200-280 mm longus, 20-50 mm latus, pallidus flavovirens. *Spathae valvae* 2, oblongae, mox marcescens. *Umbella* globosa, 200-400 mm lata. *Flores* 40-220, parvi, flavi, ferrugineis apice. *Pedicili* rigidi, 70-200 mm longi, trigoni. *Perianthium* tubo 1-2 mm longo, segmentis lanceolatis reflexis 9-14 mm longis et 2 mm latis, undulatis prope basin. *Filamenta* declinata, 8-12 mm longa, tumore basi, marronina apicem versus. *Anthera* 2 mm longa, marronina. *Ovarium* trigonum, 3 mm latum, viridis, demum rubescens. *Stylus* plus minusve rectus, 5-8 mm longus. *Capsula* trigona, membranacea, fere 10 mm lata. *Semina* globosa carnosae, fere 5 mm diam.

Type: South Africa, Cape Province, 20 km south of Karkams, fl. 17/4/1981, leaves ex hort. Kirstenbosch 9/9/1981, *Snijman* 438 (NBG, holotype; K, PRE, isotypes). **Figs 2 & 3.**

Bulb deep seated, narrowly to broadly ovate, 100-130 mm diam.; outer tunics hard and brittle, rust-coloured, splitting ultimately into numerous vertical segments with raised transverse bands forming a neck. *Leaves* (3-)4-6, appearing after the inflorescence, recurved and spreading, finally prostrate; blade broadly lorate, 210-420 mm long, 50-110 mm broad, flat, light green, leathery; abaxial surface marked with fine angular red speckles; margin with a white to rusty, soft or chaffy fringe. *Peduncle* flattened, 200-280 mm long, 20-50 mm across greatest diam., pale yellowish-green, glabrous. *Spathe valves* 2, oblong, 40-75 mm long, 20-50 mm wide, yellowish-green, soon becoming withered and reflexed. *Umbel* large, globose, 200-400 mm across. *Flowers* 40-220, small, pale yellow, becoming light brown at the tips. *Pedicels* rigid, 70-200 mm long, ageing to pale maroon, trigonous. *Perianth* tube 1-2 mm long; segments reflexed, lanceolate, 9-14 mm long, 2 mm wide, usually undulate near the base; tips acute. *Filaments* declinate, 8-12 mm, with a large swelling at the base, yellow basally, maroon distally. *Anthers* 2 mm long when open, maroon with yellow pollen. *Ovary* trigonous, 3 mm across, dark green to reddish. *Style* more or less straight, about 5-8 mm long, yellowish. *Capsule* trigonous, membranous, about 10 mm across. *Seeds* globose, fleshy, about 5 mm diam.

Flowering time: March to May.

Leafing period: from May until September.

Distribution: from Komaggas in the north, through Namaqualand to the Bokkeveldberge and the Gifberge in the south, at elevations ranging from 475 to 750 metres above sea level. The species favours flat terrain but shows no substrate preference. In the north the soils are coarse and granitic and

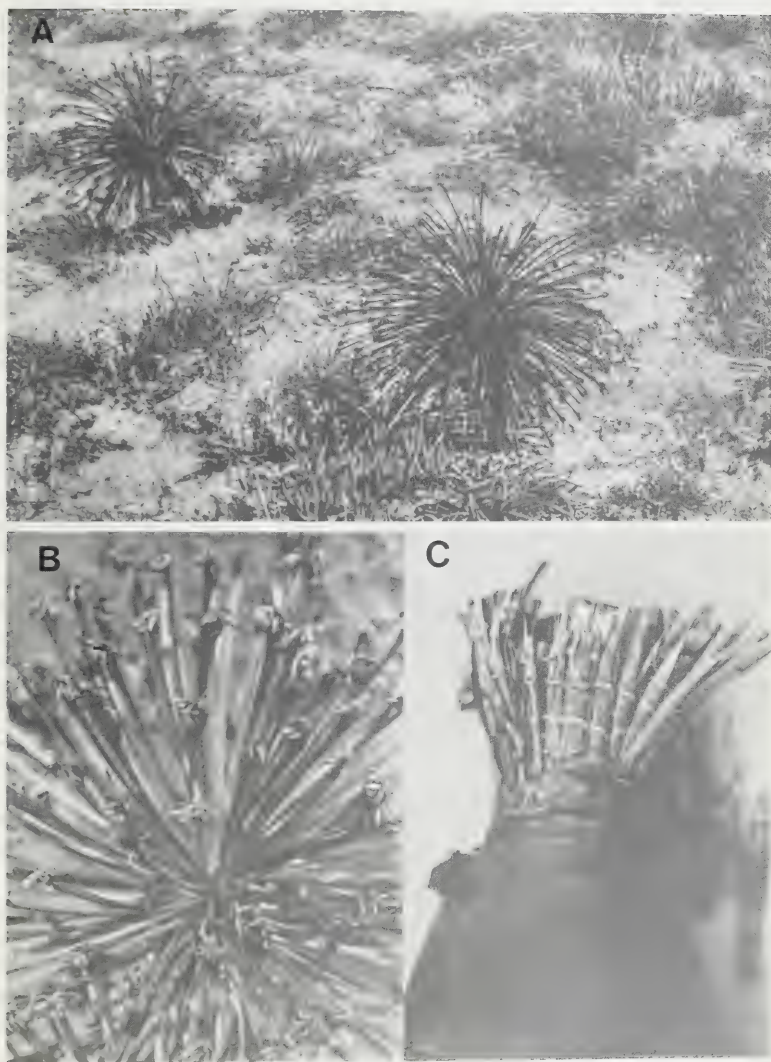


FIG. 1.

A: *Boophane flava* Barker ex Snijman, growing in Namaqualand Broken Veld near Karkams; B: detail of inflorescence; C: detail of bulb showing transversely thickened bands on neck.

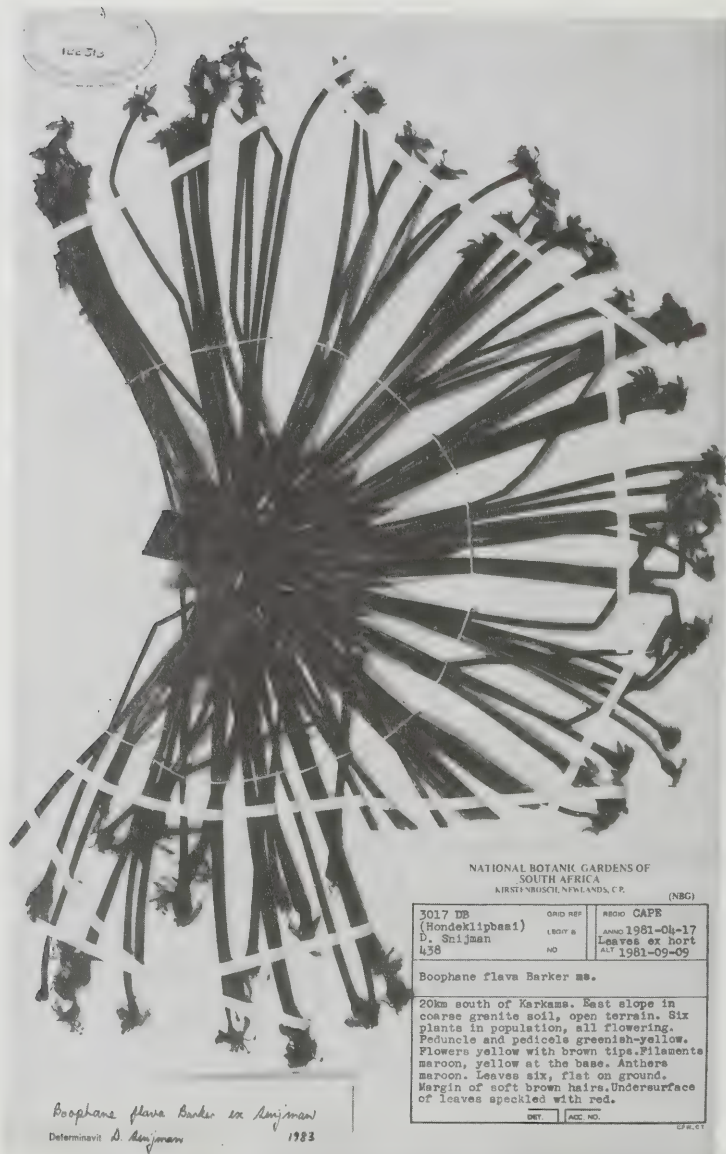


FIG. 2.

Type collection of *Boophane flava* Barker ex Snijman with inflorescence in Compton Herbarium.

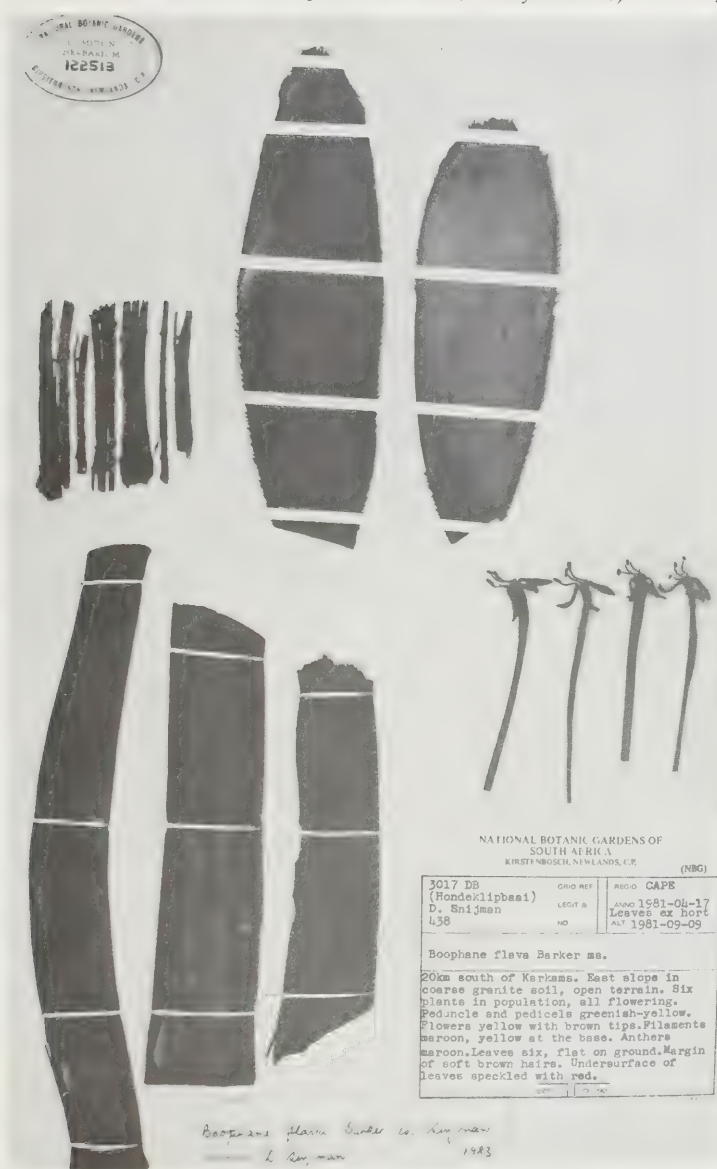


FIG. 3.

Type collection of *Boophane flava* Barker ex Snijman with leaves, peduncles, neck fibres and floral parts in Compton Herbarium.

the cover is mostly of low succulent bushes. On the Bokkeveldberge the soils are heavy clays, whereas in the south the species grows in deep sand of Table Mountain Sandstone origin in association with arid fynbos. Populations are localised made up of more or less ten scattered individuals (Fig. 4).

Boophane flava is most distinctive. Unlike any other species of *Boophane*

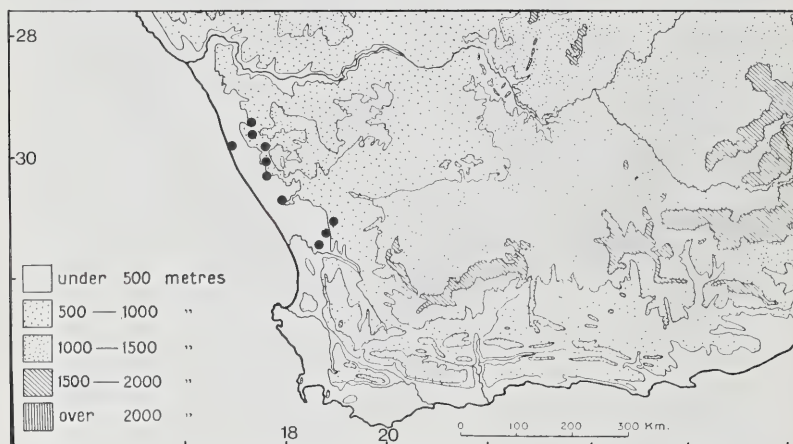


FIG. 4.
Distribution of *Boophane flava* Barker ex Snijman.

it has small yellow flowers with declinate stamens and a bulb with a well-developed neck made up of frayed vertical segments with transversely thickened bands. *Boophane guttata* (L.) Herbert, previously known as *B. ciliaris* (L.) Herbert from the south western Cape, is its closest ally. The latter also has prostrate ciliate leaves and small flowers but differs in that the flowers are actinomorphic and maroon-coloured.

Bulbs of *B. flava* in cultivation at Kirstenbosch for the past eight years have never flowered. The habit of flowering irregularly and sometimes only after long intervals, seems to apply to bulbs in nature as well. The good autumn rain of 1981 caused *B. flava* to flower profusely in the Grootvlei and Kamieskroon areas, sometimes even in private gardens where previously the flowers had never been seen.

The flowers are mostly without a scent but produce copious nectar. During the day ants, bees and butterflies were seen visiting the flowers of which the bees appeared to be the only effective pollinators. The pale yellowish-green colour of the inflorescences made them appear most conspicuous at dusk when the flowers may also be visited by moths.

CAPE—2917 (Springbok): near Van Reenen se Water, Kamaggas 200 (-DA), *van Berkel* 371 (NBG); Komaggas (-DC), *Herre* 1811 (BOL).
 —3017 (Hondekliptaai): Schulpfontein (-AA), *van Berkel* 403 (NBG); Grootvlei (-BB), *Leighton* sub NBG 265/45 (NBG), *Snijman* 440 (NBG, PRE), *van Berkel* 319 (NBG); farm Brakdam (-BD), *Snijman* 439 (K, MO, NBG, PRE); just north of Darter's Grave, *Snijman* 604 (NBG, PRE); Kharkams, *Barker* 9869 (K, NBG); 20 km south of Karkams (-DB), *Snijman* 438 (K, NBG, PRE).
 —3118 (Vanrhynsdorp): farm Koelfontein, south of Rietpoort (-AA), *Snijman* 705 (NBG); top of Koebee Pass (-DB), *Perry* 1552 (NBG); Gifberg Plateau (-DC), *W. Olivier* 192 (NBG); Giftberg, *Herre* sub SUG 67 (BOL).
 —3119 (Calvinia): farm Glen Lyon, east of Nieuwoudtville (-AC), *Snijman* 602 (NBG).

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